

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Orr et al.

Serial No.: Not Yet Assigned

Filed: September 8, 2003

For: APPARATUS AND METHOD FOR
NON-INVASIVELY MEASURING
CARDIAC OUTPUT

Confirmation No.: Unknown

Examiner: Unknown

Group Art Unit: Unknown

Attorney Docket No.: 2077.1-3868.2US

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INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

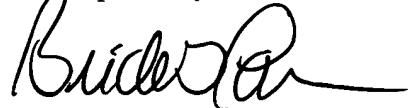
Sir:

The present application is a divisional of application Serial No. 09/777,629, filed February 6, 2001, pending, which is a continuation of application Serial No. 09/262,510, filed March 2, 1999, now United States Patent 6,227,196, issued May 8, 2001, which is a continuation-in-part of application Serial No. 08/770,138, filed December 19, 1996.

Pursuant to M.P.E.P. 2001.06(b), the Examiner is respectfully requested to consider the information of record in the prior applications, and to confirm in the first Office Action on the merits that such art has in fact been reviewed. A PTO-1449 form listing all of the information of record in the prior applications is enclosed herewith.

This Information Disclosure Statement is filed within three (3) months of the filing date of the above-identified application, and no certification pursuant to 37 C.F.R. § 1.97(c) or a fee pursuant to 37 C.F.R. 1.17(p) is required.

Respectfully submitted,



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Date: September 8, 2003

BGP/ps:djp

Enclosures: Form PTO-1449

Document in ProLaw

Form PTO-1449 INFORMATION DISCLOSURE CITATION IN AN APPLICATION (Use several sheets if necessary)			Docket Number (Optional) 3868.2US	Application Number Not Yet Assigned
			Applicant Orr et al.	
			Filing Date September 8, 2003	Group Art Unit Unknown

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	3,910,261	10/1975	Ragsdale et al.			
	4,192,301	03/1980	Hardwick			
	4,239,038	12/1980	Holmes			
	4,265,235	05/1981	Fukunaga et al.			
	4,941,476	07/1990	Fisher			
	4,947,860	08/1990	Fisher			
	5,299,579	04/1994	Gedeon et al.			
	5,642,726	07/1997	Owens et al.			

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						YES	NO
	WO 98/12963	04/1998	PCT				

OTHER DOCUMENTS

(Including Author, Title, Date, Pertinent Pages, Etc.)

	Article entitled "Noninvasive Measurement of Cardiac Output Using Partial CO ₂ Rebreathing" by John M. Copek and Rob J. Roy (pp. 653-661) - Printed in IEEE Transactions On Biomedical Engineering, Vol. 35, No. 9 - September 1988
	Article entitled "Noninvasive Measurement of Cardiac Output Using Partial Carbon-Dioxide Rebreathing" by John Michael Copek (title, introductory pages and pp. 127 - 132) - Printed by UMI Dissertation Services - December 1988
	Article entitled "Noninvasive Pulmonary Blood Flow for Optimal Peep" by A. Gedeon, ICOR AB, Ulvsundavägen 178 B, S-161 30 Bromma, Sweden (pages 49-58).
	Article entitled "Non-invasive pulmonary blood flow measurement by means of CO ₂ analysis of expiratory gases" by Bosman, R.J., et al., Intensive Care Med (1991) 17:98-102.
	Abstract FC 11 of article entitled "a Non-Invasive Technique for Measurement of Lung Perfusion" by H. Blomquist et al., published in "Monitoring, Computer, Instrumentation", Intensive Care Medicine (1986) 12:172.
	Sackner, Marvin A., <i>Measurement of cardiac output by alveolar gas exchange</i> , Handbook of Physiology ~ The Respiratory System IV, Chapter 13: Pulmonary Capillary Blood Flow, pages 233-55.

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation is considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

<p>Form PTO-1449</p> <p>INFORMATION DISCLOSURE CITATION IN AN APPLICATION</p> <p><i>(Use several sheets if necessary)</i></p>			Docket Number (Optional) 3868.2US		Application Number Not Yet Assigned			
			Applicant Orr et al.		Filing Date September 8, 2003		Group Art Unit Unknown	
			U.S. PATENT DOCUMENTS					
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE		
	5,752,509	05/1998	Lachman et al.					
	5,782,774	07/1998	Shmulewitz					
	5,836,300	11/1998	Mault					
	6,003,511	12/1999	Fukunaga et al.					
FOREIGN PATENT DOCUMENTS						Translation		
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	YES	NO	
OTHER DOCUMENTS						(Including Author, Title, Date, Pertinent Pages, Etc.)		
		de Abreu, M. Gama, et al., <i>Reliability of the Partial CO₂ Rebreathing Technique for Measurement of Cardiac Output</i> , Proceedings RC IEEE-EMBS & 14th BMESI - 1995 (3 pages).						
		de Abreu, Marcel Gama, et al., <i>Partial carbon dioxide breathing: A reliable technique for noninvasive measurement of nonshunted pulmonary capillary blood flow</i> , Crit Care Med 1997, Vol. 25, No. 4, pages 675-83.						
		Osterlund, B., et al., <i>A new method of using gas exchange measurements for the noninvasive determination of cardiac output: clinical experiences in adults following cardiac surgery</i> , Acta Anaesthesiologica Scandinavica 39 (1995), pages 727-32.						
		Gedeon, A., et al., <i>Noninvasive Cardiac Output Determined with a New Method Based on Gas Exchange Measurements and Carbon Dioxide Rebreathing: A Study in Animals/Pigs</i> , Journal of Clinical Monitoring, Vol. 8, No. 4, October 1992, pages 267-78.						
		Gedeon, A., et al., <i>A new method for noninvasive bedside determination of pulmonary blood flow</i> , Medical & Biological Engineering & Computing, July 1980, pages 411-18.						
		de Abreu, Marcelo Gama, et al., <i>Measurement of Pulmonary Capillary Blood Flow for Trending Mixed Venous Blood Oxygen Saturation and Oxygen Delivery</i> , 1 page.						
EXAMINER			DATE CONSIDERED					
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Sheet 3 of 3

Form PTO-1449

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IN AN APPLICATION

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Docket Number (Optional)
3868.2US

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Group Art Unit Unknown

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FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						YES	NO

OTHER DOCUMENTS

(Including Author, Title, Date, Pertinent Pages, Etc.)

		Winkler, Tilo, et al., <i>Pulmonary Capillary Blood Flow by Partial CO₂ Rebreathing: A Simulation Study Using a Bicompartmental Model of Gas Exchange</i> , 1 page.
		de Abreu, Marcelo Gama, et al., <i>Is the Partial CO₂ Rebreathing Technique a Useful Tool for Trending Pulmonary Capillary Blood Flow During Adjustments of Peep?</i> , 1 page.

EXAMINER

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